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09/609,021	06/30/2000	Ronald Reiger	ATTW01 -00098	2131

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EXAMINER	
NGUYEN, DAVID Q	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/609,021	REIGER ET AL.	
	Examiner	Art Unit	
	David Q. Nguyen	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-34 and 36-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-34 and 36-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 02/06/06 have been fully considered but they are not persuasive.

In response to Applicants' Remarks file 02/06/06, Applicants argue: " Park does not ever identify remote units assigned to the overloaded station and reassign them to the underutilized station.

Examiner disagrees. Park clearly discloses "a moving subscriber call in the vicinity of the neighboring cell of the overload cell is handed off to the expanded cell to thereby reduce the load of the overload cell (see col. 5, lines 8-11). It is apparent that Park discloses identifying remote units assigned to the overloaded station and reassigning them to the underutilized station.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 5-6, 8-12,14-23, 25, 27-28, 30-34 and 36-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egner et al. (US Patent Number 6223041) in view of Park et al. (US Patent Number 5912884)

Regarding claim 1, Egner et al discloses a method of allocating resources in a network comprising accessing data from a fixed wireless loop network having a plurality of stations

which are each associated with a plurality of remote units, at least a portion of the plurality of remote units being capable of receiving communication services from more than one of the plurality of stations, but assigned to received communication service from the associated station (see fig. 2; abstract; col. 2, lines 38-67; col. 4, lines 48-67). Egner et al is silent to disclose comparing communication service load data associated with one or more stations to a communications load criteria to identify a potentially overloaded station; identifying at least one of the plurality of remote units assigned to the potentially overloaded station as re-assignable to a substitute station, and reassigning the identified remote units to the substitute station to thereby reduce the number of remote units assigned to receive communication service from potentially overloaded station. However, Park et al. disclose comparing communication service load data associated with one or more stations to a communications load criteria to identify a potentially overloaded station (see col. 3, line 40 to col. 4, line 21); identifying at least one of the plurality of remote units assigned to the potentially overloaded station as re-assignable to a substitute station (see col. 5, lines 8-20), and reassigning the identified remote units to the substitute station to thereby reduce reducing the number of remote units assigned to receive communication service from potentially overloaded station (see fig. 2, 3, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54 and (see col. 5, lines 8-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Park to Egner et al in order to avoid blocking calls in the system.

Regarding claim 23, Egner et al. disclose a signal bearing medium including machine readable instructions executable by a processing apparatus to perform a method of allocating resources in a network, the method comprising: accessing data from a fixed wireless loop

network having a plurality of stations which are each associated with a plurality of remote units, at least a portion of the plurality of remote units being capable of receiving communication services from more than one of the plurality of stations, but assigned to received communication service from the associated station (see abstract; fig. 2 and fig. 8). Egner et al. are silent to disclose comparing communication service load data associated with one or more stations to a communications load criteria to identify a potentially overloaded station; identifying at least one of the plurality of remote units assigned to the potentially overloaded station as re-assignable to a substitute station, and reassigning the identified remote units to the substitute station to thereby reduce the number of remote units assigned to receive communication service from potentially overloaded station. However, Park et al. disclose comparing communication service load data associated with one or more stations to a communications load criteria to identify a potentially overloaded station (see explanation in claim 1); identifying at least one of the plurality of remote units assigned to the potentially overloaded station as re-assignable to a substitute station, and reassigning the identified remote units to the substitute station to thereby the number of remote units assigned to receive communication service from potentially overloaded station(see explanation in claim 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Park to Egner in order to avoid blocking calls in the system.

Regarding claims 3 and 25, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose a fixed wireless loop network includes data from a service area plot (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

Regarding claims 5 and 27, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose wherein the service area plot is a corrected service area plot (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

Regarding claims 6 and 28, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose wherein the service area plot is a best server plot (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

Regarding claims 8, 12, 30, and 34, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose wherein the service area plot is divided into bins and wherein the communication service load threshold is the communication service capacity of the potentially overloaded station (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

Regarding claims 9-10 and 31-32, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Egner et al. further disclose communication service load data includes a level of communication service load projected for a future date; and communication service load data includes an approximate level of communication service for a peak usage time (see abstract; see col. 2, lines 13-63; col. 3, lines 35-67; col. 4, lines 1-67; col. 5, lines 1-67; col. 6, lines 1-67; col. 7, lines 1-67; col. 8, lines 1-67).

Regarding claims 11 and 33, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al.

also disclose wherein comparing communication service load data from one or more stations to communications load criteria includes comparing the communication service load data to a communication service load threshold (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Park to Egner et al in order to balance load in the system.

Regarding claims 14 and 36, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose wherein reducing the number of remote units receiving communication service from the potentially overloaded station includes applying re-assignment criteria to the re-assignable remote unit to determine whether the re-assignable remote unit can be re-assigned to the substitute station (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

Regarding claims 15 and 37, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose wherein applying the re-assignment criteria includes determining whether re-assignable remote unit to the substitute station would cause the substitute station to become a potentially overloaded station (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

Regarding claims 16-17, 19, 38-39 and 41, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Egner et al. further discloses applying the re-assignment criteria includes comparing a strength of a signal from the substitute station against a signal strength threshold; comparing the strength of

an interference signal experience by the substitute station to an interference threshold (see abstract; fig. 1A, 1B; fig. 5 and 6; col. 3, lines 35-67; col. 4, lines 1-67; col. 5, lines 1-67; col. 6, lines 1-67; col. 7, lines 1-67; col. 8, lines 1-67).

Regarding claims 18 and 40, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Egner et al. further disclose applying the re-assignment criteria includes comparing a strength of a signal from the substitute station against a signal strength threshold and determining whether re-assigning the re-assignable remote unit to the substitute would cause the substitute station to become a potentially overloaded station (see abstract; fig. 1A, 1B; fig. 5 and 6; col. 3, lines 35-67; col. 4, lines 1-67; col. 5, lines 1-67; col. 6, lines 1-67; col. 7, lines 1-67; col. 8, lines 1-67).

Regarding claims 20 and 42, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Egner et al. further disclose applying the re-assignment criteria includes comparing a strength of a signal from the substitute station against a signal strength threshold and determining whether re-assigning the re-assignable remote unit to the substitute would cause the substitute station to become a potentially overloaded station (see abstract; fig. 1A, 1B; fig. 5 and 6; col. 3, lines 35-67; col. 4, lines 1-67; col. 5, lines 1-67; col. 6, lines 1-67; col. 7, lines 1-67; col. 8, lines 1-67).

Regarding claims 21 and 43, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Egner et al. further disclose applying the reassignment criteria includes determining whether re-assigning the re-assignable remote unit to the substitute station would cause the substitute station to become a potentially overload station, comparing the strength of an interference signal experienced by the

substitute station to an interference threshold, and comparing a strength of a signal from the substitute station against a signal strength threshold (see abstract; fig. 1A, 1B; fig. 5 and 6; col. 3, lines 35-67; col. 4, lines 1-67; col. 5, lines 1-67; col. 6, lines 1-67; col. 7, lines 1-67; col. 8, lines 1-67).

Regarding claims 22 and 44, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. Park et al. also disclose creating a service area plot which accounts for remote units re-assigned from one station to a substitute station (see fig. 2, 3A-3B, 4; col. 3, lines 8-66; col. 4, lines 1-67; col. 5, lines 1-54).

3. Claims 2, 4, 7, 24, 26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egner et al (US Patent Number 5603085) in view of Park et al. (US Patent Number 5912884) and further in view of Gunmar et al. (US Patent Number 5293640).

Regarding claims 2 and 24, Egner et al discloses a method of allocating resources in a network modified by Park et al. comprising all of the limitations as claimed above. They fail to disclose the fixed wireless loop network is a hypothetical network. However, Gunmar et al. disclose a fixed wireless loop network is a hypothetical network (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Gunmar to Park and Egner et al in order to avoid blocking calls in the system.

Regarding claims 4 and 26, Egner et al discloses a method of allocating resources in a network modified by Park comprising all of the limitations as claimed above. They fail to disclose wherein the service area plot is a service area plot for a hypothetical network. However,

Gunmar et al. also disclose wherein the service area plot is a service area plot for a hypothetical network (see abstract; fig. 8-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Gunmar to Park and Egner et al in order to use coverage data to predict capacity of cells.

Regarding claims 7 and 29, Egner et al discloses a method of allocating resources in a network modified by Park comprising all of the limitations as claimed above. They fail to disclose wherein the service area plot is a best interference plot. However, Gunmar et al. disclose a service area plot is a best interference plot (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Gunmar to Park and Egner et al in order to improve quality of service of system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Raghavan et al. (US 6,128,500) teaches method and system to optimize capacity of a CDMA cellular communication system.

Murto (US 5,966,662) teaches subscriber paging control in a mobile communication system.

Kangas (US 5,504,937) teaches local traffic capacity control in a cellular radio network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q. Nguyen whose telephone number is 571-272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH H. FEILD can be reached on (571)272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN

David Nguyen

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER